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HUGHES
NETWORK SYSTEMS

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

May 31, 2002

**EX PARTE**

Marlene H. Dortch, Secretary
Federal Communications Commission
The Portals Building
445 12th Street, SW TW-A325
Washington, D.C. 20554

Re: ET Docket 01-278
RM-9375; RM-10051

Dear Ms. Dortch:

On May 31, 2002, Robert Kepley, Christopher Hofer and Joslyn Read of Hughes Network Systems, Inc. and John Janka counsel for HNS from Latham & Watkins, met with Commissioner Kevin Martin and Sam Feder concerning the above-referenced proceeding. The attached document and HNS' positions of record in this proceeding formed the basis for the discussion.

Sincerely,

/s/ Joslyn Read

Joslyn Read
Assistant Vice President
Regulatory & International Affairs

Attachment

cc: Commissioner Martin
Sam Feder

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List ABCDE

**Corporate Offices**
11717 Exploration Lane
Germantown, MD 20876
Tel: (301) 428-5500
www.hns.com

HUGHES
NETWORK SYSTEMS

# Part 15 NPRM on Radar Detector Interference

**Hughes Network Systems**

Paul Gaske, Robert Kepley, Joslyn Read

# HNS Overview

HUGHES NETWORK SYSTEMS

*HNS is the world's premier provider of broadband satellite services, products and network solutions*

- Hughes Network Systems, a subsidiary of Hughes Electronics Corporation, is the world's largest provider of broadband satellite network solutions for businesses and consumers.
- Over 500,000 VSAT systems installed in more than 85 countries - more than half of which are in the USA.
- HNS pioneered the development of high-speed satellite Internet access services, marketed globally under DirecPC® and DIRECWAY® brands.
- Revenues in 2001: $1.3 billion.
- Headquartered in Germantown, MD, with a major facility in San Diego, CA, and more than 30 facilities and sales offices worldwide, HNS employs over 4,400 people in engineering, operations, marketing, sales, and support.
- HNS operates manufacturing facilities in Maryland; the U.K.; and Mexico.

# Innovator of Broadband Services, Products, and Network Solutions

HUGHES NETWORK SYSTEMS

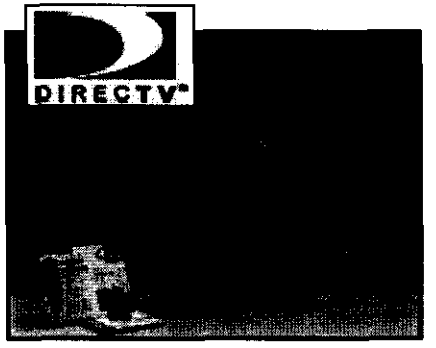
**1983**

*Invention of first VSAT*

**1990**

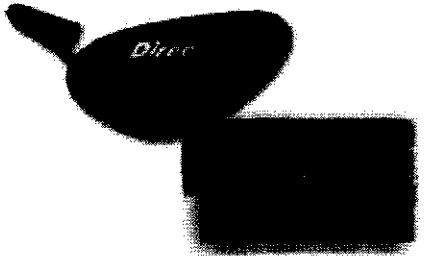
*First Mesh VSAT (PES™)*

**1994**



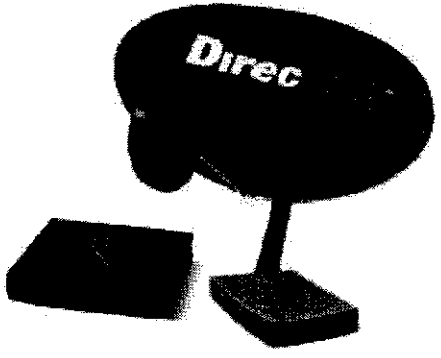

*DIRECTV®*

**1995**



*DirecPC®*
*Dial Return Service*

**1999**




*DirecDuo™*

**2000**

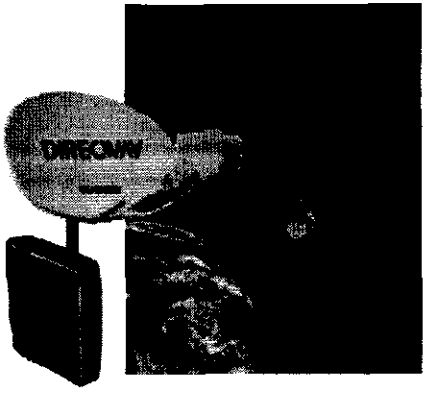
*Shipped 8,000,000th*
*DIRECTV Set-Top box*

**2001**


*DIRECWAY®*
*Satellite Return Service*

**2003**

SPACEWAY.




*Next Generation Ka-band*
*Broadband*

# Corporate VSAT Services

HUGHES NETWORK SYSTEMS

- **VSATs provide networking services to every sector of the American economy:**
  - **Oil and gas**
    - HNS has more than 40,000 gasoline retail locations under contract today
  - **Financial services**
  - **Shipping**
  - **Merchandising**
  - **Telecommunications**
  - **Law enforcement**
  - **Local, state and federal governmental agencies**
- **VSAT services are provided today in C and Ku Bands under primary FSS allocation**
  - **VSATs operate pursuant to earth station licenses issued by the Commission**
- **Licensed operators and customers have legitimate expectation of protection from harmful interference**

# Current Regulation of Radar Detectors

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- Radar detectors as Part 15 devices are required to operate on a non-interference basis
- Radar detectors are exempted from emissions limits in Section 15.109 by Section 15.101(b)
  - Impractical and difficult to enforce existing part 15 non-interference rules against consumers who operate radar detectors
- General Section 15.109 Emissions Limit - - *but not Radar Detectors*
  - 500 microvolts/meter measured at a distance of 3m for frequencies above 960 MHz
- FCC issued NPRM in October 2001 to resolve this radar detector interference problem and subject these devices to Part 15 emissions limits

# The Radar Detector Interference Problem

HUGHES NETWORK SYSTEMS

- Radar detectors produce harmful interference into licensed VSAT operations
  - Interference events increasing
  - New radar detectors active in more bands above 960 MHz
  - Levels emitted are above 100,000 microvolts/meter measured at a distance of 3 meters

- Commercial impact of this interference is significant
  - For Customers: Credit card and billing transactions may be rendered non-operational
  - For Satellite and Network Operators: Current and prospective customers are concerned about continued viability of VSAT services

# Necessary Solution

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- **Regulate emission levels of radar detectors**
  - ***Need to establish emissions limit of 85 microvolts/meter measured at 3 meters for radar detectors operating between 10.7-12.7 GHz***
  - ***Subject radar detectors operating in other frequency ranges above 30 MHz to the relevant emission limits of 15.109(a)***
- **Require all radar detectors to comply with the new emission limits immediately**
  - ***Apply new regulation to all radar detectors not yet sold***
  - ***Impose compliance on radar detectors already in circulation through trade-in programs or other mechanisms***

# Conclusion

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- Record is complete with uncontroverted showings of harmful interference caused to VSATs by radar detectors
- Need urgent action by FCC to establish rule for radar detectors with immediate effect
  - For radar detectors operating between 10.7-12.7 GHz,
    - Regulate emissions levels of radar detectors at level of 85 microvolts/meter measured at 3 meters
  - For radar detectors operating in other frequency ranges above 30 MHz,
    - Apply the relevant emissions limits of 15.109(a)
- Impose new regulation on all existing and future radar detectors